

[Semiconductor device and method of producing the same]

Abstract

A semiconductor device is disclosed which can be miniaturized and in which structures on a semiconductor substrate therein are difficult to delaminate, as well as a method of producing the same. The semiconductor device includes a semiconductor substrate main unit, and a thin portion that is thinner than the main unit and formed such that a recessed portion is formed in the semiconductor substrate and has at least one through hole formed therein. The thin portion is formed such that the etching rate of the thin portion is slower than the etching rate of the main unit. The thin portion provides a bridging structure between both sides of the recessed portion, and can mechanically and structurally strengthen the semiconductor device with respect to forces applied from the side surfaces of the main unit of the semiconductor substrate. Thus, structures such as wires, films, and semiconductor elements formed on the main unit and/or the thin portion of the semiconductor substrate or via the through holes will be difficult to detach from the semiconductor device.